

***COPROPHILUS STRIATULUS* (COLEOPTERA:  
STAPHYLINIDAE): CONFIRMATION OF  
ESTABLISHMENT OF A PALEARCTIC OXYTELINE  
ROVE BEETLE IN NORTH AMERICA<sup>1</sup>**

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ABSTRACT: Confirmation of the establishment of *Coprophilus striatulus*, a common and widespread Palearctic oxyteline staphylinid, in eastern North America (New York, Quebec, Ontario) is documented. Known North American distributional data are recorded and mapped. Recognition features are described and illustrated, and habitat preferences and native distribution are summarized.

In early spring 1987, a single specimen of a rather large and striking species of oxyteline Staphylinidae was collected while sweeping streamside vegetation in a local state park in the Finger Lakes region of central New York. Since then, several additional specimens from other localities in the eastern United States and eastern Canada have also been examined (see "Specimens Examined" below). Using a key to the world genera of Oxytelinae by Herman (1970), these specimens easily trace to the genus *Coprophilus* Latreille. In North America, there are currently 2 recognized species, *C. sexualis* Leech which occurs in the Pacific Northwest, and *C. castoris* Campbell described from beaver lodges in eastern Canada (Campbell, 1979). The above-mentioned specimens represented neither. A close examination of the European literature (Reitter, 1909; Portevin, 1929; Joy, 1932; Lohse, 1964), and use of a key to the American species of *Coprophilus* by Campbell (1979) enabled me to identify the specimens as *C. striatulus* (F.), a widespread Palearctic species. *Coprophilus striatulus* was included in Campbell's (1979) key "only because it has been recorded from North America in the literature" (see Fauvel, 1878). So far as known, the locality data listed below and mapped (Map 1) represent the first confirmed records of this species in North America.

**Specimens Examined.**

CANADA: Ontario: Ottawa, 23-IV-1984, A. Davies (CNCI) 1. Quebec: Ste-Clothilde, 2-VI-1981, G. Boivin (CNCI) 1.

UNITED STATES: New York: *Albany Co.*, Rensselaer, II-IV-1994, 2-V-1994, S. Palmer (CUIC) 3. *Cortland Co.*, 3 mi. NE Dryden, 20-IV-1974, E. R. Hoebeke (CUIC) 1. *Monroe Co.*, Rochester, 8-IV-1994, C. Conrow (CUIC) 1. *Niagara Co.*, Niagara Falls, 28-IV-1990, E. R. Hoebeke (CUIC) 1. *Oswego Co.*, Mexico, 20-IV-1994, 22-VI-1994, C. Zippel (CUIC) 2. *Tompkins Co.*, Ithaca, 24-31-V-1981, E. R. Hoebeke (CUIC) 1; Ithaca, R. H. Treman State Park, 24-III-1987, A. Millman (CUIC) 1; Shindagin Hollow, 3-V-1975, E. R. Hoebeke (CUIC) 1.

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The Canadian specimens are deposited in the Canadian National Collection of Insects, Ottawa (CNCI), while the New York specimens are deposited in the Cornell University Insect Collection, Ithaca (CUIC).



Map 1. Known North American distribution of *Coprophilus striatulus* (F.)

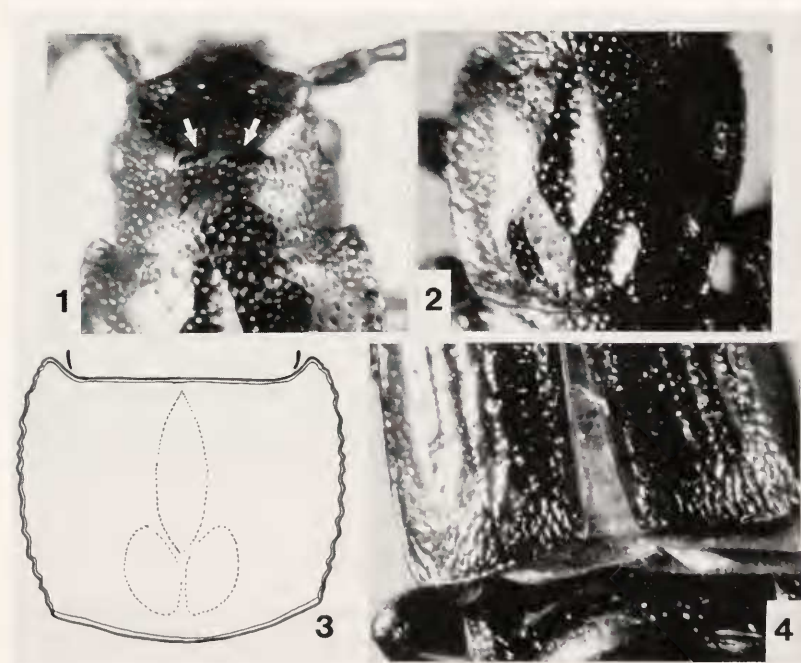
**Historical Occurrence.** – Although *C. striatulus* has been recorded from North America for well over a century (Fauvel, 1878), the record has been determined to be erroneous. Upon examining the specimen (a male from Canada in the LeConte collection) that was the basis for the Fauvel record, Campbell (1979) found that it was not conspecific with specimens of the Palearctic *C. striatulus*, but instead was identical to specimens he described as *C. castoris*, collected from beaver lodges. As a result, *C. striatulus* was removed from the list of North American species. All catalogues and checklists (Austin, 1880; Henshaw, 1885; Scheerpeltz, 1933; Blackwelder, 1973) that have listed *C. striatulus* from North America apparently have also been based on the Fauvel record.

**Recognition Features.** – Among the numerous genera of Oxytelinae, adults of *Coprophilus* are easily distinguished by their characteristic dorsal habitus (see Fig. 1 in Campbell, 1979), and by the following combination of characters as given by Herman (1970):

Strongly sclerotized body, stout fourth segment of maxillary palpus, absence of epistomal suture, separation of gular sutures for entire length, open procoxal fissure, broadly exposed pro-trochantin, striate elytra, separation of mesocoxae by mesosternal process, and abdominal segments III-VI with four laterosclerites per segment.

Of the three species of *Coprophilus* known to occur in North America, *C. sexualis* can be recognized chiefly by its smaller body size (less than 5 mm), by the head without a trace of a transverse groove between the posterior margins of the eyes, and by its geographic distribution in southern British Columbia. *Coprophilus castoris* and *C. striatulus*, on the other hand, closely resemble each other in body size (5-9 mm), and their geographic distribution in eastern North America. Campbell (1979) provided the following diagnosis for *C. striatulus* in contrasting it with *C. castoris*:

Transverse groove across head at level of posterior margin of eyes deeper and much more distinct (Fig. 1), frons along anterior margin of groove raised and impunctate (Fig. 1, arrows), eyes very finely pubescent, median impression of pronotum longer, deeper and extending forward almost to anterior margin (Figs. 2-3), lateral margins of pronotum more coarsely and distinctly crenulate (Fig. and posterior portion of elytra much more coarsely and distinctly rugose (Fig. 4).



Figs. 1-4. *Coprophilus striatulus* (F.). 1, Dorsal aspect of head; note distinct transverse groove between posterior margin of eyes and raised, impunctate frons along posterior margin of groove (arrows). 2-3, Dorsal aspect of pronotum-photomicrograph (Fig. 2) and line drawing of same (Fig. 3). 4, Apices of elytra; note coarsely rugose outer posterior angles.

**Habits and Habitat.** – Available European literature suggests that *C. striatulus* is commonly encountered in decomposing plant matter and compost, and occurs on roads and pavements during the spring months. The species has been found “in haystacks and vegetable refuse and hotbeds” (Fowler, 1888); under rotting beets, cow dung, and decaying leaves, occasionally beneath cadavers, stones, wetbark of deciduous trees, in sap exudations of trees, and in mole nests in the winter (Johansen, 1914; Horion, 1963); at manure boxes (Johansen, 1914); and in stables and in chaff at borders of barnyards (Horion, 1963).

In Lincolnshire, England, it is “common on pavements in early spring, running in the sun, but not found later in the year...” (Fowler, 1888). Johansen (1914) noted beetles are often found crawling on walls of homes, especially in the autumn, and Ganglbauer (1895) cited a similar phenomenon of finding beetles on masonry walls of houses in the spring.

Adults are generally found from March to June, and more rarely in the autumn and winter (Du Chatnert, 1986), while the larval stages occur in August (Horion, 1963).

Interestingly, six specimens, taken at Rensselaer, Mexico, and Rochester, NY, in April, May, and June 1994 (see “Specimens Examined” above) were collected from traps (Lindgren funnel traps) designed to attract specifically targeted exotic bark beetles in New York State. The Rensselaer and Mexico specimens were taken from traps baited with the lure component alpha-pinene, while the Rochester specimen was taken from a trap with the attractant chalcoprax.

**Geographic Distribution.** – *Coprophilus striatulus* is widely distributed in the Palearctic region, occurring from northern continental Europe (Denmark, Sweden, Norway, and Finland) and the British Isles and Ireland through middle and southern continental Europe (Holland, Belgium, Germany, Austria, France, Switzerland, Italy, Hungary, Czechoslovakia, Poland, and the former USSR) (Lohse, 1964). In North America, it is presently known from eastern Canada (Ontario, Quebec) and eastern United States (New York) (see Map 1).

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